

## INTERNATIONAL SEARCH REPORT

 International Application No  
 PCT/JP2004/013281

## A. CLASSIFICATION OF SUBJECT MATTER

 IPC 7 H01L21/68 H01L21/52 H01L21/78 B23Q11/00 B23D59/00  
 H05K13/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23Q B23D H01L H05K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 778 326 <sup>✓</sup> A (ALTHOUSE ET AL) <sup>✓</sup> 18 October 1988 <sup>✓</sup> (1988-10-18) <sup>✓</sup> column 3, line 9 - column 7, line 2; figures 1-4	1-16
X	US 4 921 564 <sup>✓</sup> A (MOORE ET AL) <sup>✓</sup> 1 May 1990 (1990-05-01) <sup>✓</sup> column 5, line 23 - column 3, line 12; figures 2,3	1-16
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 10, 17 November 2000 (2000-11-17) & JP 2000 195877 <sup>✓</sup> A (MATSUSHITA ELECTRIC IND CO LTD), 14 July 2000 <sup>✓</sup> (2000-07-14) abstract; figure 2 ----- -/--	1-16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

22 February 2005

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 299 (E-1558), 8 June 1994 (1994-06-08) -& JP 06 061347 A <sup>✓</sup> (FUJITSU LTD), 4 March 1994 (1994-03-04) ✓ abstract; figure 1 -----	1-16
A	PATENT ABSTRACTS OF JAPAN vol. 017, no. 657 (E-1470), 6 December 1993 (1993-12-06) & JP 05 218178 <sup>✓</sup> A <sup>✓</sup> (FUJITSU LTD), 27 August 1993 <sup>✓</sup> (1993-08-27) ✓ abstract; figures 4,5 -----	1-16